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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	Jan Eveleens, et al.
Serial No.:	09/992,928
Filed:	November 5, 2001
For:	METHOD AND DEVICE FOR COMMUNICATING A COMMAND
Group No.:	2614
Examiner:	Paulos M. Natnael

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P.O. Box 1450
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APPEAL BRIEF

The Appellants have appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner dated September 20, 2005, finally rejecting Claims 1-10 and 12-22. The Appellants filed a Notice of Appeal on March 20, 2006, which was received by the U.S. Patent and Trademark Office on March 24, 2006. The Appellants respectfully submit this brief on appeal with the appropriate statutory fee and the appropriate fee to cover a one (1) month extension of time.

REAL PARTY IN INTEREST

This application is currently owned by Koninklijke Philips Electronics N.V. as indicated by

an assignment recorded on February 20, 2002 in the Assignment Records of the U.S. Patent and

Trademark Office at Reel 012645, Frame 0260.

RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences that will directly affect, be directly affected by,

or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1-10 and 12-22 have been rejected pursuant to a final Office Action dated September

20, 2005. Claim 11 has been objected to as being allowable but depending from a rejected base

claim pursuant to the final Office Action dated September 20, 2005. Claims 1-10 and 12-22 are

presented for appeal. A copy of all pending claims is provided in Appendix A.

STATUS OF AMENDMENTS

No amendments were submitted and refused entry after issuance of the final Office Action

dated September 20, 2005.

SUMMARY OF CLAIMED SUBJECT MATTER

Regarding Claim 1, a method of communicating a command to a controllable device 130

includes generating a watermark comprising the command, which is to be executed by the controllable device 130. (*Application, Page 7, Lines 6-16*). The method also includes generating a watermarked signal 120 comprising the watermark and an information unit 116 to be transmitted to the controllable device 130. (*Application, Page 7, Lines 17-31*). In addition, the method includes transmitting the watermarked signal 120 to the controllable device 130 for causing the controllable device 130 to execute the command. (*Application, Page 7, Lines 31-33*). Transmitting the watermarked signal 120 includes rendering the watermarked signal 120 using a video device and/or an audio device, where the controllable device 130 is capable of receiving the rendered watermarked signal 120 produced by the video device and/or the audio device. (*Application, Page 9, Lines 4-9; Page 3, Lines 7-23*).

Regarding Claim 6, an arrangement for remotely controlling a controllable device 130 includes embedding means for generating a watermark comprising a command, which is to be executed by the controllable device 130. (*Application, Page 7, Lines 6-16*). The arrangement also includes watermarking means for generating a watermarked signal 120 comprising the watermark and an information unit 116 to be transmitted to the controllable device 130. (*Application, Page 7, Lines 17-31*). The arrangement further includes output means for transmitting the watermarked signal 120 to the controllable device 130 for causing the controllable device 130 to execute the command. (*Application, Page 7, Lines 31-33*). The output means include video means and/or audio means capable of transmitting the watermarked signal 120 by rendering the watermarked signal 120. (*Application, Page 9, Lines 4-9; Page 3, Lines 7-23*). The arrangement also includes receiving means for receiving the rendered watermarked signal 120 in the controllable device 130, where the

receiving means are capable of receiving the rendered watermarked signal 120 produced by the video means and/or the audio means. (*Application, Page 8, Lines 8-11*). In addition, the arrangement includes decoding means for obtaining the information unit 116 from the rendered watermarked signal 120 and obtaining the command from the information unit 116, and executing means for executing the command. (*Application, Page 8, Lines 12-22*). The embedding means may include an embedding module 113, which could be implemented in a computer program product 140. (*Application, Page 7, Lines 6-7; Page 8, Lines 31-34*). The watermarking means may include a watermarking module 114, which could be implemented in a computer program product 140. (*Application, Page 7, Lines 20-26; Page 8, Lines 31-34*). The output means may include an output module 115. (*Application, Page 7, Lines 31-33*). The video means may include a television, a computer, a videotape player, a Video CD player, a DVD player, or a mechanism for projecting images onto a screen (*Application, Page 3, Lines 21-23; Page 7, Lines 1-2; Page 2, Lines 21-26*). The audio means may include a loudspeaker, a television speaker, another type of speaker, or a computer. (*Application, Page 3, Lines 20-23; Page 9, Line 31 – Page 10, Line 5; Page 10, Lines 10-17; Page 3, Lines 27-28*). The receiving means may include a receiving module 131, such as a microphone, a camera, or a light sensor. (*Application, Page 8, Lines 9-11*). The decoding means may include a decoding module 132, which could be implemented in a computer program product 141. (*Application, Page 8, Lines 12-15; Page 9, Lines 1-3*). The executing means may include an executing module 133, which could represent a processor. (*Application, Page 8, Lines 16-22; Page 9, Lines 1-3*).

Regarding Claim 7, a controlling device 110 arranged for communicating a command to a

controllable device 130 includes embedding means for generating a watermark comprising the command, which is to be executed by the controllable device 130. (*Application, Page 7, Lines 6-16*). The controlling device 110 also includes watermarking means for generating a watermarked signal 120 comprising the watermark and an information unit 116 to be transmitted to the controllable device 130. (*Application, Page 7, Lines 17-31*). In addition, the controlling device 110 includes output means for transmitting the watermarked signal 120 to the controllable device 130 for causing the controllable device 130 to execute the command, where the output means include video means and/or audio means. (*Application, Page 7, Lines 31-33; Page 9, Lines 4-9; Page 3, Lines 7-23*). The video means and/or the audio means are capable of transmitting the watermarked signal 120 by rendering the watermarked signal 120, and the controllable device 130 is capable of receiving the rendered watermarked signal 120 produced by the video means and/or the audio means. (*Application, Page 8, Lines 8-11*). The embedding means may include an embedding module 113, which could be implemented in a computer program product 140. (*Application, Page 7, Lines 6-7; Page 8, Lines 31-34*). The watermarking means may include a watermarking module 114, which could be implemented in a computer program product 140. (*Application, Page 7, Lines 20-26; Page 8, Lines 31-34*). The output means may include an output module 115. (*Application, Page 7, Lines 31-33*). The video means may include a television, a computer, a videotape player, a Video CD player, a DVD player, or a mechanism for projecting images onto a screen (*Application, Page 3, Lines 21-23; Page 7, Lines 1-2; Page 2, Lines 21-26*). The audio means may include a loudspeaker, a television speaker, another type of speaker, or a computer. (*Application, Page 3, Lines 20-23; Page 9, Line 31 – Page 10, Line 5; Page 10, Lines 10-17; Page 3, Lines 27-28*).

Regarding Claim 8, a controllable device 130 arranged for receiving a command from a controlling device 110 includes receiving means for receiving a rendered watermarked signal 120 in the controllable device 130. (*Application, Page 8, Lines 8-11*). The rendered watermarked signal 120 is produced by video means and/or audio means in the controlling device 110, where the video means and/or the audio means are capable of rendering a watermarked signal 120. (*Application, Page 9, Lines 4-9; Page 3, Lines 7-23*). The controllable device 130 also includes decoding means for obtaining an information unit 116 from the rendered watermarked signal 120 and obtaining the command from a watermark in the information unit 116. (*Application, Page 8, Lines 12-22*). In addition, the controllable device 130 includes executing means for executing the command. (*Application, Page 8, Lines 12-22*). The receiving means may include a receiving module 131, such as a microphone, a camera, or a light sensor. (*Application, Page 8, Lines 9-11*). The decoding means may include a decoding module 132, which could be implemented in a computer program product 141. (*Application, Page 8, Lines 12-15; Page 9, Lines 1-3*). The executing means may include an executing module 133, which could represent a processor. (*Application, Page 8, Lines 16-22; Page 9, Lines 1-3*).

Regarding Claim 10, a method of presenting an advertisement to a user includes generating a watermark comprising a command, which is to be executed by a controllable device 130. (*Application, Page 7, Lines 6-16; Page 12, Lines 8-10*). The command is related to presenting the advertisement. (*Application, Page 12, Lines 10-17*). The method also includes generating a watermarked signal 120 comprising the watermark and an information unit 116 to be transmitted to the controllable device 130. (*Application, Page 7, Lines 17-31; Page 12, Lines 10-33*). In addition,

the method includes transmitting the watermarked signal 120 to the controllable device 130 for causing the controllable device 130 to execute the command by generating the advertisement and presenting the advertisement to the user. (*Application, Page 7, Lines 31-33; Page 12, Lines 10-33*). Transmitting the watermarked signal 120 includes rendering the watermarked signal 120 using a video device and/or an audio device, and the controllable device 130 is capable of receiving the rendered watermarked signal 120 produced by the video device and/or the audio device. (*Application, Page 9, Lines 4-9; Page 3, Lines 7-23; Page 12, Lines 10-33*).

Regarding Claim 12, a signal 120 includes an information unit 116 in which a watermark is embedded, where the watermark includes a command to be executed by a controllable device 130. (*Application, Page 7, Lines 6-16*). The signal 120 has been rendered using a video device and/or an audio device, and the controllable device 130 is capable of receiving the signal 120 from the video device and/or the audio device. (*Application, Page 9, Lines 4-9; Page 3, Lines 7-23*).

Regarding Claim 13, an apparatus 110 for remotely controlling a controllable device 130 includes an embedding module 113 for generating a watermark comprising a command to be executed by the controllable device 130. (*Application, Page 7, Lines 6-16*). The apparatus 110 also includes a watermarking module 114 for generating a watermarked signal 120 comprising the watermark and an information unit 116 to be transmitted to the controllable device 130. (*Application, Page 7, Lines 17-31*). In addition, the apparatus 110 includes an output module 115 for transmitting the watermarked signal 120 to the controllable device 130 for causing the controllable device 130 to execute the command. (*Application, Page 7, Lines 31-33*). The output module 115 includes a video device and/or an audio device capable of rendering the watermarked signal 120, where the

controllable device 130 is capable of receiving the rendered watermarked signal 120 produced by the video device and/or the audio device. (*Application, Page 9, Lines 4-9; Page 3, Lines 7-23*).

Regarding Claim 17, an apparatus 130 for receiving a command from a controlling device 110 includes a receiving module 131 for receiving a rendered watermarked signal 120 comprising a watermark from the controlling device 110. (*Application, Page 8, Lines 9-11*). The rendered watermarked signal 120 is produced by a video device and/or an audio device in the controlling device 110, where the video device and/or the audio device is capable of rendering a watermarked signal 120. (*Application, Page 9, Lines 4-9; Page 3, Lines 7-23*). The apparatus 130 also includes a decoding module 132 for obtaining an information unit 116 from the rendered watermarked signal 120 and obtaining a command from the information unit 116. (*Application, Page 8, Lines 12-15*). In addition, the apparatus 130 includes an executing module 133 for executing the command. (*Application, Page 8, Lines 16-22*).

GROUNDS OF REJECTION

1.   Claims 1-5, 7-10, and 12-22 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2001/0054150A1 to Levy ("*Levy*").

2.   Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Levy*.

ARGUMENT

I. GROUND OF REJECTION #1 (§ 102 REJECTION)

The rejection of Claims 1-5, 7-10, and 12-22 under 35 U.S.C. § 102(e) is improper and should be withdrawn.

A. OVERVIEW

Claims 1-5, 7-10, and 12-22 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2001/0054150A1 to Levy ("*Levy*").

B. STANDARD

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. (*MPEP § 2131; In re Bond, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)*). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. (*MPEP § 2131; In re Donohue, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985)*).

C. THE *LEVY* REFERENCE

Levy recites a method for controlling how media signals (such as images, audio signals, or video signals) are rendered. (*Abstract*). At the time that a media signal is created, a watermarking embedding command and its associated parameters are defined by a user. (*Page 3, Par. [0033]*).

Among other things, the parameters of the watermarking embedding command define the embedding method for a watermark, the payload of the watermark, the location of the watermark, and the robustness, perceptual quality, and fragility of the watermark. (*Pages 3-5; Pars. [0042]-[0050]*). The watermarking embedding command is placed into a rendering description file 122 along with other rendering commands 120 for the media signal. (*Page 5; Par. [0051]*). Later, one or more rendering processes 124-128 execute the watermarking embedding command and embed a watermark into the media signal. (*Page 5, Par. [0053]*). The media signal with the watermark is then rendered by one or more rendering devices 134-138. (*Page 5, Par. [0053]*).

D.   CLAIMS 1-5, 7-10, AND 12-22

Claim 1 recites a method of communicating a command to a controllable device, which includes:

> generating a watermark comprising the command, which is to be executed by the controllable device;
> generating a watermarked signal comprising the watermark and an information unit to be transmitted to the controllable device; and
> transmitting the watermarked signal to the controllable device for causing the controllable device to execute the command, wherein transmitting the watermarked signal comprises rendering the watermarked signal using at least one of a video device and an audio device, the controllable device capable of receiving the rendered watermarked signal produced by at least one of the video device and the audio device.

The Examiner fails to establish that *Levy* anticipates all elements of Claim 1. In particular, the Examiner fails to establish that *Levy* anticipates transmitting a watermarked signal by "rendering

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the watermarked signal using at least one of a video device and an audio device," where a controllable device is capable of "receiving the rendered watermarked signal produced by at least one of the video device and the audio device."

Levy simply recites a system where a user can define a command that controls how a watermark is embedded in a media signal. In *Levy*, the command is used by a rendering process 124-128 to embed the watermark in the media signal. The media signal is then rendered by a rendering device 134-138.

In contrast, Claim 1 recites that a watermarked signal is rendered by a video device and/or an audio device to transmit the watermarked signal to a controllable device. Claim 1 requires that the watermarked signal be rendered so that a controllable device can receive the rendered watermarked signal.

Levy never renders a media signal containing a watermark in order to transmit a command in the media signal to a controllable device. If anything, the "controllable device" in *Levy* is either the rendering processes 124-128 or the rendering devices 134-138. *Levy* never discloses that the rendering processes 124-128 or the rendering devices 134-138 receive the media signal containing the watermark from a video device and/or an audio device that rendered the media signal.

The Examiner points to paragraph [0064] of *Levy*, which describes how this watermarking embedding function can be used for embedding watermarks in vector graphics. For example, a watermarking embedding command can be used to control how a watermark is embedded into a logo or other vector graphic superimposed over a video image. If the logo is selected by a user (such as by using a cursor control device), the watermark in the logo can be decoded and used to return

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interactive information to the user. (*Page 6, Par. [0064]*).

This portion of *Levy* simply describes how a watermark can be embedded into a logo or other graphic displayed to a user. *Levy* simply displays an image, and interactive actions may be performed if a watermarked portion of that image is selected by the user. This portion of *Levy* contains absolutely no mention of transmitting a command to a controllable device by "rendering a watermarked signal using at least one of a video device and an audio device," where the controllable device is capable of "receiving the rendered watermarked signal produced by at least one of the video device and the audio device." For example, nothing here in *Levy* indicates that a controllable device performs an action in response to a set-top box or computer rendering a video image containing a watermark in a logo.

Claim 1 is crystal clear – a watermarked signal containing a command is transmitted to a controllable device by rendering the watermarked signal using a video device and/or an audio device. The Examiner has simply identified a reference that discloses embedding a watermark in a media signal, rendering the media signal, and optionally performing some action if a watermarked portion of a rendered image is selected. This is inadequate to anticipate Claim 1. While the Examiner has shown that a signal with a watermark is rendered in *Levy*, the Examiner has failed to show that a controllable device receives and uses the rendered signal to execute a command in *Levy*.

For these reasons, *Levy* fails to anticipate the Appellants' invention as recited in Claim 1 (and its dependent claims).

Similarly, Claims 7, 8, 10, 12, 13, and 17 recite that a "controllable device" can receive a rendered watermarked signal that is produced by at least one of (i) a "video device" or "video

means" and (ii) an "audio device" or "audio means," where the rendered watermarked signal contains a command to be executed by the controllable device. *Levy* fails to anticipate these elements of Claims 7, 8, 10, 12, 13, and 17 (and their dependent claims).

Accordingly, the Appellants respectfully request that the § 102 rejection of Claims 1-5, 7-10, and 12-22 be withdrawn and that Claims 1-5, 7-10, and 12-22 be passed to allowance.

II.   GROUND OF REJECTION #2 (§ 103 REJECTION)

The rejection of Claim 6 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

A.   OVERVIEW

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Levy*.

B.   STANDARD

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (*MPEP § 2142; In re Fritch, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992)*). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (*MPEP § 2142; In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984)*). Only when a *prima facie* case of obviousness is established does the burden shift to the Appellants to produce evidence of nonobviousness. (*MPEP § 2142; In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); In*

re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993)). If the Patent Office

does not produce a *prima facie* case of unpatentability, then without more the Appellants are entitled

to grant of a patent. (*In re Oetiker, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir.

1992); In re Grabiak, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985)*).

A *prima facie* case of obviousness is established when the teachings of the prior art itself

suggest the claimed subject matter to a person of ordinary skill in the art. (*In re Bell, 991 F.2d 781,

783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993)*). To establish a *prima facie* case of obviousness,

three basic criteria must be met. First, there must be some suggestion or motivation, either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art, to

modify the reference or to combine reference teachings. Second, there must be a reasonable

expectation of success. Finally, the prior art reference (or references when combined) must teach or

suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the

reasonable expectation of success must both be found in the prior art, and not based on Appellants'

disclosure. (*MPEP § 2142*).

C.   CLAIM 6

Claim 6 recites an arrangement for remotely controlling a controllable device, which

includes:

> embedding means for generating a watermark comprising a
> command, which is to be executed by the controllable device;
> watermarking means for generating a watermarked signal
> comprising the watermark and an information unit to be transmitted
> to the controllable device;

output means for transmitting the watermarked signal to the controllable device for causing the controllable device to execute the command, the output means comprising at least one of video means and audio means capable of transmitting the watermarked signal by rendering the watermarked signal;

receiving means for receiving the rendered watermarked signal in the controllable device, the receiving means capable of receiving the rendered watermarked signal produced by at least one of the video means and the audio means;

decoding means for obtaining the information unit from the rendered watermarked signal and obtaining the command from the information unit; and

executing means for executing the command.

The Examiner fails to establish that *Levy* discloses, teaches, or suggests all elements of Claim 6. In particular, the Examiner fails to establish that *Levy* discloses, teaches, or suggests transmitting a watermarked signal by "rendering the watermarked signal" using video means and/or audio means, where a controllable device includes receiving means capable of "receiving the rendered watermarked signal" produced by the video means and/or the audio means.

As shown above, *Levy* simply recites rendering media signals with embedded watermarks in the media signals. While the embedded watermarks could be used for certain interactive functions, *Levy* never discloses, teaches, or suggests that a controllable device can receive a command from a watermarked signal that has been rendered by video means and/or audio means. For example, *Levy* never mentions that a controllable device could receive a command from a watermarked signal that has been rendered by a set-top box or computer.

For these reasons, *Levy* fails to disclose, teach, or suggest the Appellants' invention as recited in Claim 6. Accordingly, the Appellants respectfully request that the § 103 rejection of Claim 6 be withdrawn and that Claim 6 be passed to allowance.

SUMMARY

The Appellants have demonstrated that the present invention as claimed is clearly distinguishable over the prior art cited of record. Therefore, the Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

The Appellants have enclosed the appropriate fee to cover the cost of this APPEAL BRIEF and a one (1) month extension of time. The Appellants do not believe that any additional fees are due. However, the Commissioner is hereby authorized to charge any additional fees (including any additional extension of time fees) or credit any overpayments to Deposit Account No. 50-0208.

Respectfully submitted,

MUNCK BUTRUS, P.C.

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William A. Munck
Registration No. 39,308

P.O. Drawer 800889
Dallas, Texas 75380
(972) 628-3600 (main number)
(972) 628-3616 (fax)
E-mail: *wmunck@munckbutrus.com*

APPENDIX A

PENDING CLAIMS APPENDIX

1.   A method of communicating a command to a controllable device, comprising the steps of:

generating a watermark comprising the command, which is to be executed by the controllable device;

generating a watermarked signal comprising the watermark and an information unit to be transmitted to the controllable device; and

transmitting the watermarked signal to the controllable device for causing the controllable device to execute the command, wherein transmitting the watermarked signal comprises rendering the watermarked signal using at least one of a video device and an audio device, the controllable device capable of receiving the rendered watermarked signal produced by at least one of the video device and the audio device.

2.   A method as claimed in claim 1, wherein the watermarked signal is generated in a first domain and the information unit is generated in a second domain.

3.   A method as claimed in claim 2, wherein the first domain is one of an acoustic domain and a visual domain.

4.   A method as claimed in claim 2, wherein the second domain is an electrical domain.

5.   A method as claimed in claim 1, where the command relates to at least one of: control of a physical movement of a part of the controllable device, rendering of an audio output by the controllable device, rendering of a visual output by the controllable device, and adjusting a value for at least one parameter associated with the command.

6. An arrangement for remotely controlling a controllable device, comprising:

embedding means for generating a watermark comprising a command, which is to be executed by the controllable device;

watermarking means for generating a watermarked signal comprising the watermark and an information unit to be transmitted to the controllable device;

output means for transmitting the watermarked signal to the controllable device for causing the controllable device to execute the command, the output means comprising at least one of video means and audio means capable of transmitting the watermarked signal by rendering the watermarked signal;

receiving means for receiving the rendered watermarked signal in the controllable device, the receiving means capable of receiving the rendered watermarked signal produced by at least one of the video means and the audio means;

decoding means for obtaining the information unit from the rendered watermarked signal and obtaining the command from the information unit; and

executing means for executing the command.

7. A controlling device arranged for communicating a command to a controllable device, comprising:

embedding means for generating a watermark comprising the command, which is to be executed by the controllable device;

watermarking means for generating a watermarked signal comprising the watermark and an information unit to be transmitted to the controllable device; and

output means for transmitting the watermarked signal to the controllable device for causing the controllable device to execute the command, the output means comprising at least one of video means and audio means capable of transmitting the watermarked signal by rendering the watermarked signal, the controllable device capable of receiving the rendered watermarked signal produced by at least one of the video means and the audio means.

8. A controllable device arranged for receiving a command from a controlling device, comprising:

receiving means for receiving a rendered watermarked signal in the controllable device, the rendered watermarked signal produced by at least one of video means and audio means in the controlling device, at least one of the video means and the audio means capable of rendering a watermarked signal;

decoding means for obtaining an information unit from the rendered watermarked signal and obtaining the command from a watermark in the information unit; and

executing means for executing the command.

9. A computer program product being arranged for causing a processor to execute the method of claim 1.

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10.   A method of presenting an advertisement to a user, comprising the steps of:

generating a watermark comprising a command, which is to be executed by a controllable device, the command being related to presenting the advertisement;

generating a watermarked signal comprising the watermark and an information unit to be transmitted to the controllable device; and

transmitting the watermarked signal to the controllable device for causing the controllable device to execute the command by generating the advertisement and presenting the advertisement to the user, wherein transmitting the watermarked signal comprises rendering the watermarked signal using at least one of a video device and an audio device, the controllable device capable of receiving the rendered watermarked signal produced by at least one of the video device and the audio device.

11.   A method as claimed in claim 10, further comprising the steps of:

maintaining a user profile for the user based on a sale of the controllable device to the user;

determining using the user profile a product that the user is likely to want to buy, and

adding an identifier for the product to the command.

12.   A signal comprising an information unit in which a watermark is embedded, the watermark comprising a command to be executed by a controllable device, the signal having been rendered using at least one of a video device and an audio device, the controllable device capable of receiving the signal from at least one of the video device and the audio device.

13.   An apparatus for remotely controlling a controllable device, comprising:

an embedding module for generating a watermark comprising a command to be executed by the controllable device;

a watermarking module for generating a watermarked signal comprising the watermark and an information unit to be transmitted to the controllable device; and

an output module for transmitting the watermarked signal to the controllable device for causing the controllable device to execute the command, the output module comprising at least one of a video device and an audio device capable of rendering the watermarked signal, the controllable device capable of receiving the rendered watermarked signal produced by at least one of the video device and the audio device.

14.   The apparatus of Claim 13, wherein the watermarked signal is generated in a first domain and the information unit is generated in a second domain.

15.   The apparatus of Claim 14, wherein the first domain comprises one of a visual domain and an acoustic domain, and the second domain comprises an electrical domain.

16.   The apparatus of Claim 14, wherein:
the video device comprises a television and the audio device comprises a loudspeaker; and
the information unit comprises at least a portion of one of: a television program, a radio program, a movie, an advertisement, a picture, and a sound.

17.   An apparatus for receiving a command from a controlling device, comprising:
a receiving module for receiving a rendered watermarked signal comprising a watermark from the controlling device, the rendered watermarked signal produced by at least one of a video device and an audio device in the controlling device, at least one of the video device and the audio device capable of rendering a watermarked signal;
a decoding module for obtaining an information unit from the rendered watermarked signal and obtaining a command from the information unit; and
an executing module for executing the command.

18.   The apparatus of Claim 17, wherein the watermarked signal is generated in a first domain and the information unit is generated in a second domain.

19.   The apparatus of Claim 18, wherein the first domain comprises one of a visual domain and an acoustic domain, and the second domain comprises an electrical domain.

20.   The apparatus of Claim 17, wherein:
the modules form a portion of one of: a mobile telephone, a television receiver, a stereo, a toy, a handheld computer, and a personal digital assistant; and
the information unit comprises at least a portion of one of: a television program, a radio program, a movie, an advertisement, a picture, and a sound.

21.   The apparatus of Claim 13, wherein:
the video device comprises a television; and
the audio device comprises a speaker.

22.   The apparatus of Claim 17, wherein:
the video device comprises a television;
the audio device comprises a speaker; and
the receiving module comprises at least one of: a microphone, a camera, and a light sensitive sensor.

APPENDIX B

EVIDENCE APPENDIX

None

APPENDIX C

RELATED PROCEEDINGS APPENDIX

None